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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 972,019	10 05 2001	Myles H. Wakayama	47426 RJP B600	3152

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Sterne, Kessler, Goldstein & Fox P. L. L. C.
Suite 600
1100 New York Avenue, N. W.
Washington, DC 20005-3934

EXAMINER

KINKEAD, ARNOLD M

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 12 31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,019

Applicant(s)

WAKAYAMA, MYLES H.

Examiner

Arnold M Kinhead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03-22-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 24-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 24-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on 05 October 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: *6/10/02*

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DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 10-05-01. These drawings are acceptable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24-32, and 34-45 rejected under 35 U.S.C. 102(b) as being anticipated by Gersbach et al.

The reference by Gersbach et al discloses a CMOS charge pump that is part of a PLL loop(see figures 1 and 2).

Figure 1 shows the PLL with detector(12) receiving input data, charge pump(14), and timing reference generator(18).

In figure 2, first(H4) and second primary(H12) current sources are shown with first and second parallel current paths

including(H1,H3,H2,H10, and 42,44). A first output node(31) and second output node(49) are shown. A filter(RC in

general) is coupled to the first node and a LOOP capacitor C is shown in figure 4. A feedback path is shown

connected to reduce DC offset at charge pump output. The adjustment current being developed by way of T4,T5.

The method steps being inherent.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gersbach et al(US 5,508,660 cited by applicant).

The reference by Gersbach et al discloses a CMOS charge pump that is part of a PLL loop(see figures 1 and 2).

Figure 1 shows the PLL with detector(12) receiving input data, charge pump(14), and timing reference generator(18).

In figure 2, first(H4) and second primary(H12) current sources are shown with first and second parallel current paths including(H1,H3,H2,H10, and 42,44). A first output node(31) and second output node(49) are shown. A filter(RC in general) is coupled to the first node and a LOOP capacitor C is shown in figure 4. A feedback path is shown connected to reduce DC offset at charge pump output. The adjustment current being developed by way of T4,T5.

The reference does not describe a particular RC filter configuration, however, a series RC in parallel with another resistor. This, however, is a conventional circuit used as a low pass filter for developing the VCO control signal, notoriously well known to one of ordinary skill in the art.

In light of the above it would have been obvious to one of ordinary skill in the art to have recognized that the general low pass filter of the reference may be one of several notoriously well known configurations to allow for the

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control signal to be developed for the VCO as is conventional and well within the level of skill for one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold M Kinhead whose telephone number is 703-305-3486. The examiner can normally be reached on Mon-Fri, 8:30 am -5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 703-308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Arnold M Kinhead
Primary Examiner
Art Unit 2817

Arnold Kinhead
December 26, 2002

